

Claims

1. A swivel mechanism for incorporation between the carriage of stairlift assembly, and a chair having a pair of spaced sides and a central axis midway between said spaced sides,

5 said swivel mechanism being characterised in that it includes at least one pivot centre about which said chair may swivel with respect to said carriage, said pivot centre intersecting with said chair at a point between said central axis and one of said sides.
2. A swivel mechanism as claimed in claim 1 including two pivot
10 centres located so as to intersect with said chair on opposite sides of said central axis, said swivel mechanism being constructed and arranged so that only one pivot centre is engaged at one time to define the swivel axis between said carriage and said chair.
3. A swivel mechanism as claimed in claim 2 further characterised in that
15 the means for defining one of said pivot centres serves to limit the degree of rotation about the other of said pivot centres, when the other of said pivot centres is engaged to define said swivel axis.
4. A swivel mechanism as claimed in claim 2 or claim 3 including an arcuate guide positioned to overlie each of said pivot centres.
- 20 5. A swivel mechanism as claimed in claim 4 further including a control member mounted for rotation on each said pivot centre, and being engageable with a said guide, said guide being slidable with respect to its control member.

6. A swivel mechanism as claimed in claim 5 wherein a swivel movement is generated by applying a rotational action to the control member mounted on a first said of pivot centres, against the edge of the guide in contact therewith, whilst allowing sliding movement of the other of said guides over the control member mounted on the second of said pivot centres.
7. A swivel mechanism as claimed in claim 5 or claim 6 further including a motor for each said control member, each said motor being operable to rotate its control member.
8. A swivel mechanism as claimed in claim 7 further including interlock means to cut power to one of the said motors whilst the other of the said motors is in operation.
9. A swivel mechanism as claimed in claim 7 or claim 8 further including means to manually isolate said motor or motors from said control member or members.
10. A stairlift assembly including the swivel mechanism as claimed in any of claims 1 to 9.
11. A swivel mechanism including:
- a substantially planar first part;
- a substantially planar second part arranged substantially parallel to said first part, said first and second parts being capable of rotation with respect to one another about two spaced swivel axes arranged perpendicular to their planes,

said swivel mechanism being characterised in that the means which defines one of said swivel axes, when not so engaged to act as the swivel axis, serves to control the relative rotation of said first and second parts about the other of said swivel axes.

- 5 12. A swivel mechanism as claimed in claim 11 wherein the rotation about each of said swivel axes is defined by the combination of arcuate guides provided in one of said first or second parts, and control members mounted on the other of said first or second parts, said control members engaging with, and being displaceable with respect to, said arcuate guides.
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13. A swivel mechanism as claimed in claim 12 wherein a control member is mounted on, and is pivotable about, each of said swivel axes.
14. A swivel mechanism providing swivel actions about two spaced, parallel, axes, said mechanism being characterised in that the swivel action about each axis is effected and controlled by the interaction of control members located in, and displaceable with respect to, arcuate guides.
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15. A swivel mechanism as claimed in claim 14 wherein said control members are also rotatable.
- 20 16. A swivel mechanism as claimed in claim 14 or claim 15 wherein said arcuate guides comprise slots in which said control members are received.

17. A stairlift installation including a carriage and a chair, wherein a swivel mechanism as claimed in any one of claims 11 to 16 is disposed between said carriage and said chair.
- 5 18. A swivel mechanism for a stairlift installation having a carriage and a chair mounted on said carriage, such that said chair can be swivelled from a central position in which a user seated in said chair faces in a direction substantially perpendicular to the direction of travel of said carriage, to first and second positions in clockwise and a counter-clockwise directions, respectively, from said central position, said
10 swivel mechanism being characterised in that first drive means are provided to effect a swivel action between said central position and said first position; and second drive means are provided to effect a swivel action between said central position and said second position.
- 15 19. A swivel mechanism as claimed in claim 18 including two spaced swivel axes such that said chair swivels between said central position and said first position about one of said axes, and between said central position and said second position about the other of said axes.
- 20 20. A swivel mechanism for incorporation between a stairlift carriage and a stairlift chair, said swivel mechanism including at least one motor to rotate said chair with respect to said carriage, said swivel mechanism
20 being characterized in that manual disengagement means are provided to allow said motor to be disengaged thus allowing said chair to be manually rotated with respect to said carriage.
- 25 21. A carriage/chair combination for a stairlift including the swivel mechanism as claimed in any one of claims 18 to 20.